

June 12, 1998

Mr. Parker E. Brugge
Patton Boggs, L.L.P.
2550 M Street, N.W.
Washington, D.C. 20037-1350

Dear Mr. Brugge:

This letter is in response to your April 7, 1998, letter seeking clarification on the distinction between thermal desorbers and incinerators. Under the U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 260.10), thermal treatment units that are enclosed devices using controlled flame combustion, and that are neither boilers nor industrial furnaces, are classified as incinerators subject to regulation under 40 CFR Part 264, Subpart O. Thermal treatment units that do not use controlled flame combustion, and that are neither boilers nor industrial furnaces, are classified as "miscellaneous units" subject to regulation under 40 CFR Part 264, Subpart X.

EPA regulations do not define "thermal desorber", but the term generally applies to a unit that treats waste thermally to extract the contaminants from the matrix. A thermal desorber utilizing controlled flame combustion (e.g., equipped with a directly fired desorption chamber and/or a fired afterburner to destroy organics) would meet the regulatory definition of an incinerator. On the other hand, a thermal desorber that did not use controlled flame combustion (e.g., equipped with an indirectly heated desorption chamber and the desorbed organics were not "controlled"/destroyed with an afterburner) would be classified as a "miscellaneous unit".

With regard to the September 1993 Presumptive Remedy guidance entitled: "Presumptive Remedies: Site Characterization and Technology Selection for CERCLA Sites with Volatile Organic Compounds in Soils" (Directive Number 9355.0-48FS) that you mentioned, EPA identified thermal desorption and incineration as the second and third preferred technologies, respectively. The intent of the guidance is that units that can be generally described as thermal desorbers, whether or not they are also incinerators, are second in the preference list. However, if a thermal desorber that meets the RCRA definition of incinerator is used to treat hazardous waste at a CERCLA site, the unit must meet RCRA's incinerator standards. EPA developed the preferential order set out in this guidance based on historical patterns of remedy selection and EPA's scientific and engineering evaluation of performance data on technology implementation.

There was no intent implied or stated in the Presumptive Remedy guidance that the preferential order was based on the temperature of operation; the guidance does not limit the thermal desorbers technologies to those that are low-temperature thermal desorbers.

We appreciate that as technologies evolve, the distinctions between units often become blurred, and, in the case of thermal desorbers, may fall within two separate classifications depending on the design of the unit. Classification of a “thermal treatment” unit, however, is defined by 40 CFR 260.10.

Both the RCRA regulatory framework and the CERCLA remedy selection process provide adequate flexibility to ensure that the unit is operated in a protective manner and that there is adequate and informed public participation. If you have any further questions, please contact either Andrew O’Palko, Office of Solid Waste, at (703) 308-8646 or Robin Anderson, Office of Emergency and Remedial Response, at (703) 603-8747.

Sincerely,

signed by Elizabeth Cotsworth

Elizabeth Cotsworth
Acting Director
Office of Solid Waste

Sincerely,

**signed by Elaine Davies for Stephen
Luftig**

Stephen D. Luftig
Director
Office of Emergency and Remedial
Response

cc: Andrew O’Palko, OSW
Bob Holloway, OSW
Robin Anderson, OERR
Karen Kraus, OGC
Superfund Regional Response Managers
RCRA Senior Policy Advisors